Jean-Jacques FORNERON

Placement Chairs		Placement Assistant	
Martín Uribe	mu2166@columbia.edu	Amy Devine	aed2152@columbia.edu
Pierre-André Chiappori (Fall)	pc2167@columbia.edu		
Navin Kartik (Spring)	nk2339@columbia.edu		

Contact

Mail: Department of Economics, Columbia University, 420 W. 118 St., New York, NY 10027
Email: jmf2209@columbia.edu
Website: jjforneron.com

Fields of Interest: Econometrics, Macroeconometrics, Industrial Organization

Education

2012–2018 | Ph.D. in Economics, Columbia University, New-York
Dissertation title: *Essays on Simulation-Based Estimation*

2009–2012 | MA. in Economics and Statistics, ENSAE ParisTech, Paris, France

2009–2012 | MSc. in Management, HEC Paris, Paris, France

Job Market Paper

A Sieve-SMM Estimator for Dynamic Models (pdf, supplement)

Abstract: This paper proposes a Sieve Simulated Method of Moments (Sieve-SMM) estimator for the parameters and the distribution of the shocks in nonlinear dynamic models where the likelihood and the moments are not tractable. An important concern with SMM, which matches sample with simulated moments, is that a parametric distribution is required but economic quantities that depend on this distribution, such as welfare and asset-prices, can be sensitive to misspecification. The Sieve-SMM estimator addresses this issue by flexibly approximating the distribution of the shocks with a Gaussian and tails mixture sieve. The asymptotic framework provides consistency, rate of convergence and asymptotic normality results, extending sieve theory to more general dynamics with latent variables. Monte-Carlo simulations illustrate the finite sample properties of the estimator. Two empirical applications highlight the importance of the distribution of the shocks. The first provides evidence of non-Gaussian shocks in macroeconomic data and their implications on welfare and the risk-free rate. The second finds that Gaussian estimates of stochastic volatility are significantly biased in exchange rate data because of fat tails.

Papers

2017 | The ABC of Simulation Estimation with Auxiliary Statistics (pdf)
with Serena Ng, Conditionally Accepted at the Journal of Econometrics, last revision August 2016

2016 | A Likelihood-Free Reverse Sampler of the Posterior Distribution (pdf)
with Serena Ng, Advances in Econometrics Vol 36, p.389-415, 2016

Work in Progress

Assessing the Sensitivity of Structural VAR models

Work Experience

Summer 2013	Bank of America Merryl Lynch, *European Economics Research, London, UK* *Forecasting EU GDP growth rates using dynamic factor models*
Spring 2011	Credit Suisse, *Global Economics Research, Zurich, Switzerland* *Daily and weekly economic reports, forecasting G20 GDP growth rates*
Fall 2010	Amundi Asset Management, *Economics Strategy, Paris, France* *Forecasting US economic indicators and constructing a suprise index*
2009-2010	OECD, *Regulatory Policy (Governance), Paris, France* *Statistical analysis of the Indicators of Regulatory Management Systems (pdf)*

Teaching Assistant

2013–2017	Introduction to Econometrics
2015	Introduction to Econometrics II (PhD)
2015–2016	Advanced Econometrics

Research Assistant

2014–2016	Serena Ng	Columbia University
2014	Emi Nakamura	Columbia Business School
2012	Lucrezia Reichlin	London Business School

Conference Presentations

2016	The ABC of Simulation Estimation with Auxiliary Statistics *International Association for Applied Econometrics Annual Conference (IAAE, Milan)*
	Assessing the Sensitivity of Structural VAR Models (Poster Session) *CIREQ Econometrics Conference in Honor of Jean-Marie Dufour (Montréal)*
2015	A Likelihood-Free Reverse Sampler of the Posterior Distribution *9th International Conference on Computational and Financial Econometrics (CFE, London)*

Honors and Awards

2017–2018	Dissertation Fellowship
2013–2017	Teaching Fellowship
2016–2017	Lewis A. Sanders Endowed Fellowship in Economics
2014–2015	Lewis A. Sanders Endowed Fellowship in Economics Wueller Pre-Dissertation Award for Best Fourth Year Paper *(Runner-Up)*
2013–2014	Lewis A. Sanders Endowed Fellowship in Economics Harris Prize for Best Second Year Paper *(Runner-Up)*
2012–2013	Dean's Fellowship

Personal

Languages: French (native), English (fluent), Spanish (basic), Chinese (basic)
Citizenship: France and the United-States
Programming: R, C++, SQL, Python, Matlab, Stata

References

Serena Ng (Primary)
Department of Economics
Columbia University
(212)-854-5488
sn2294@columbia.edu

Jushan Bai
Department of Economics
Columbia University
(212)-854-8033
jb3064@columbia.edu

Sokbae (Simon) Lee
Department of Economics
Columbia University
(212)-851-9486
sl3841@columbia.edu

Bernard Salanié
Department of Economics
Columbia University
(212)-854-0472
bs2237@columbia.edu